Base Year: 1999 By: S. Schultz

SOURCE INVENTORY

CATEGORY # 29

COOKING

1999 EMISSIONS

Introduction

This category includes particulate and volatile organic compound emissions from the preparation of food for human consumption at eating establishments. Restaurant equipment that contributes to these emissions includes charbroilers, griddles, and deep fat fryers. Charbroilers can either be conveyorized or under-fire; both types generally use natural gas, however, under-fire charbroilers may use solid fuels, such as charcoal or wood. Deep-fat fryers may be either gas-fired or electric to heat the cooking oil used to cook the food. Griddles use an exposed metal plate, heated by either gas or electricity, to cook the food.

Methodology

The number of eating establishments in 1999 was estimated at 17,071. This figure was derived from the 1999 "Taxable Sales in California" report published by the California State Board of Equalization.

Particulate matter (PM) and Total Organic Gas (TOG) emission factors (in pounds of pollutant per eating establishment) were calculated based on a March 1997 SCAQMD report on “Control Technology Assessment for Emissions of Particulate Matter and Volatile Organic Compounds from Restaurant Operations”. The emission factors are as follows:

PM	273.2	lbs./establishment-yr.
TOG	53.93	lbs./establishment-yr.

The District’s annual PM and TOG emissions were calculated by multiplying the above emission factors by the total number of establishments.

Monthly Variation

Monthly distribution was estimated based on seasonal variation of each establishment, which is a higher sale during summer months due to longer daylight hours and warmer weather.

County Distribution

The number of eating establishments in each county, as reported in the "Taxable Sales in California", was used to distribute emissions.

TRENDS

History

Emissions through the years were estimated based on historical number of eating establishments as reported in the above publication.

Growth

Projections to year 2030 were based on ABAG's Service Employment data.